Matter No.: 10559-851001
Applicant(s): Christopher J. Lord et al.
INTEGRATING A DEVICE INTO A SECURE NETWORK

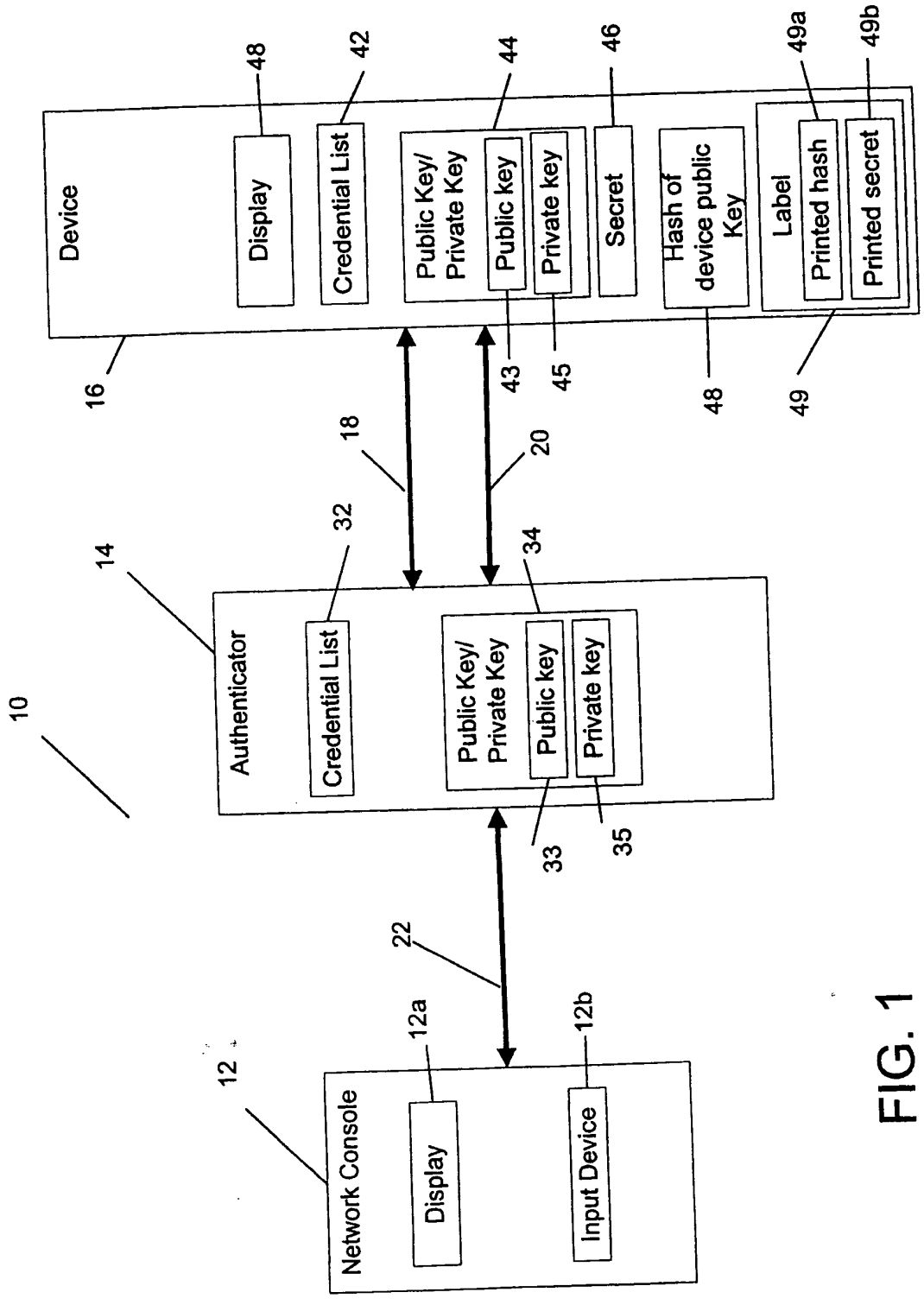

FIG. 1

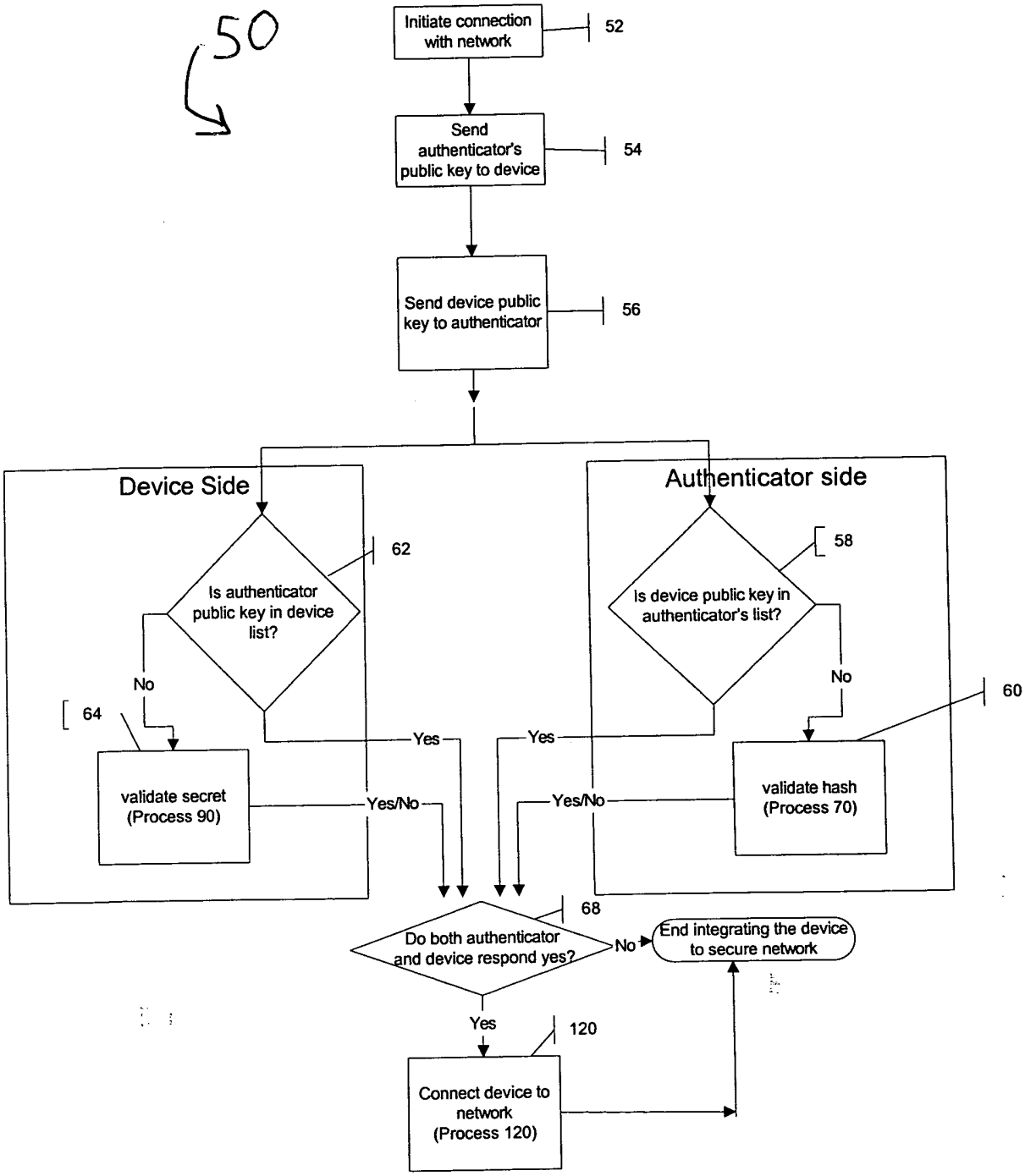
50
Initiate connection with network
52
Send authenticator's public key to device
54
Send device public key to authenticator
56
Device Side
Authenticator side
Is authenticator public key in device list?
62
Is device public key in authenticator's list?
58
No
64
Yes
Yes
No
60
validate secret (Process 90)
Yes/No
Yes/No
validate hash (Process 70)
Do both authenticator and device respond yes?
68
No
End integrating the device to secure network
Yes
120
Connect device to network (Process 120)

FIG. 2

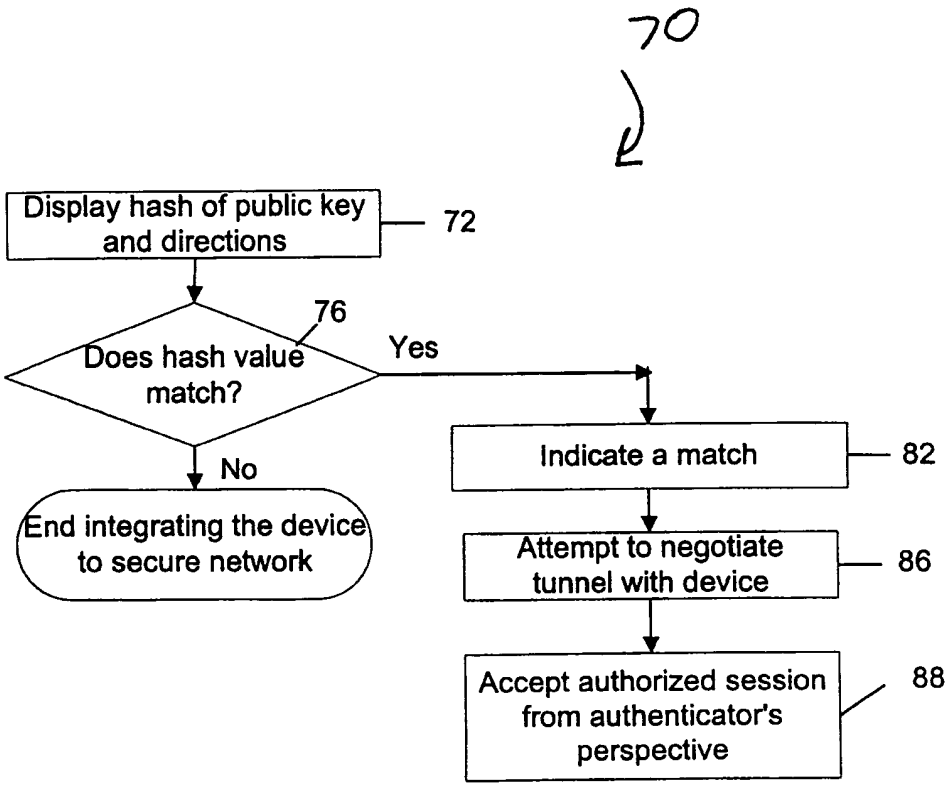
70
Display hash of public key and directions
72
76
Does hash value match?
Yes
No
End integrating the device to secure network
Indicate a match
82
Attempt to negotiate tunnel with device
86
Accept authorized session from authenticator's perspective
88

FIG. 3

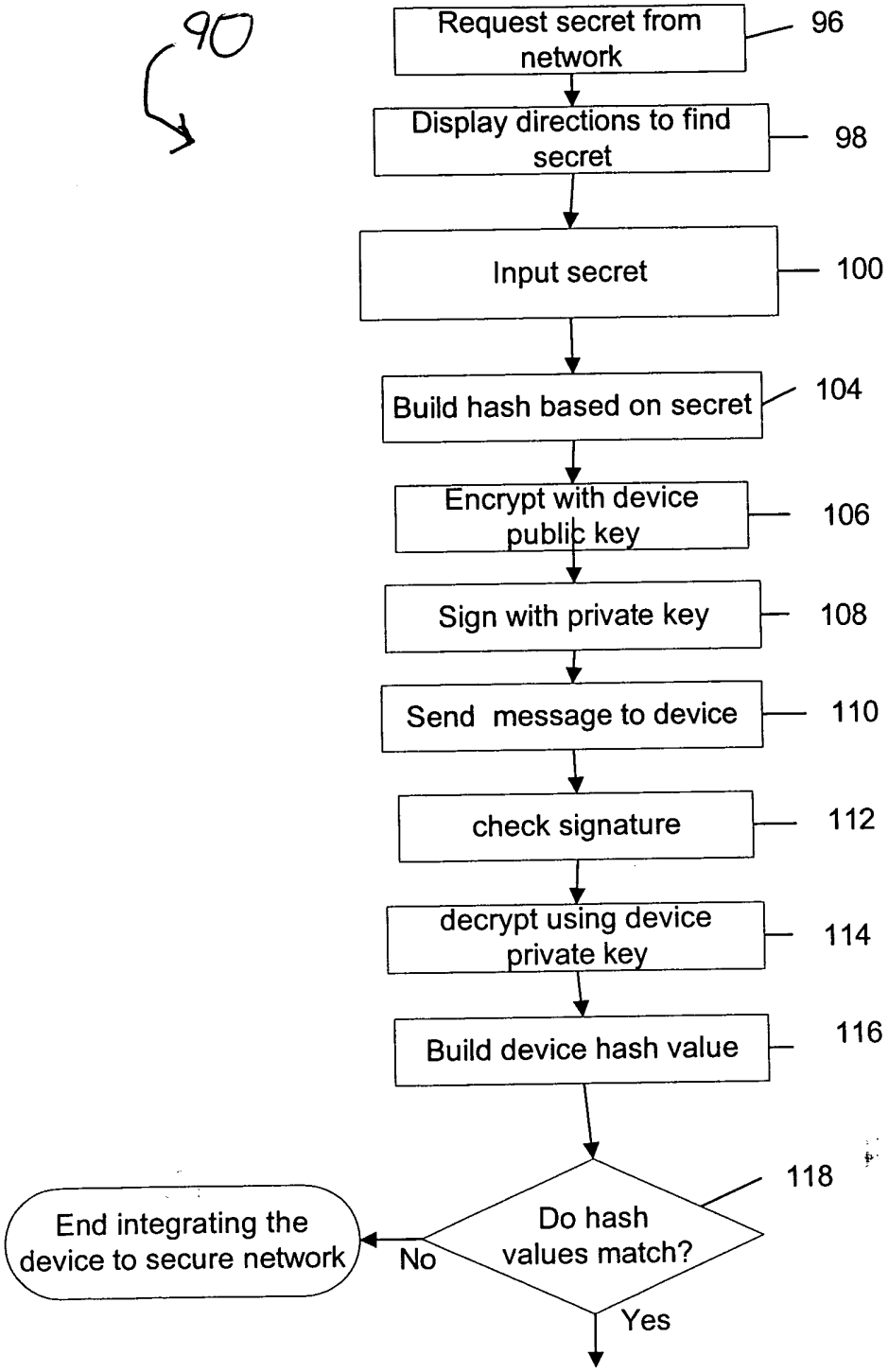
90
Request secret from network
96
Display directions to find secret
98
Input secret
100
Build hash based on secret
104
Encrypt with device public key
106
Sign with private key
108
Send message to device
110
check signature
112
decrypt using device private key
114
Build device hash value
116
Do hash values match?
118
No
End integrating the device to secure network
Yes

FIG. 4

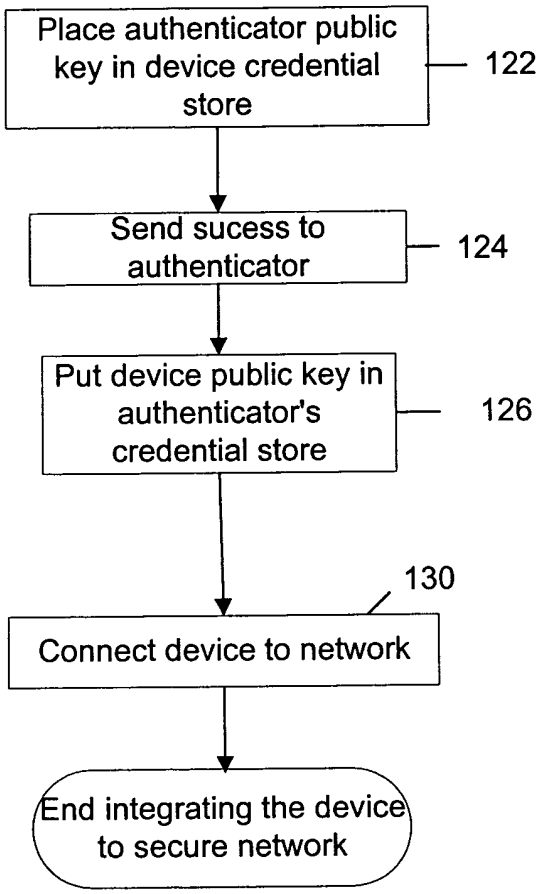
Place authenticator public key in device credential store
122
Send sucess to authenticator
124
Put device public key in authenticator's credential store
126
130
Connect device to network
End integrating the device to secure network

FIG. 5

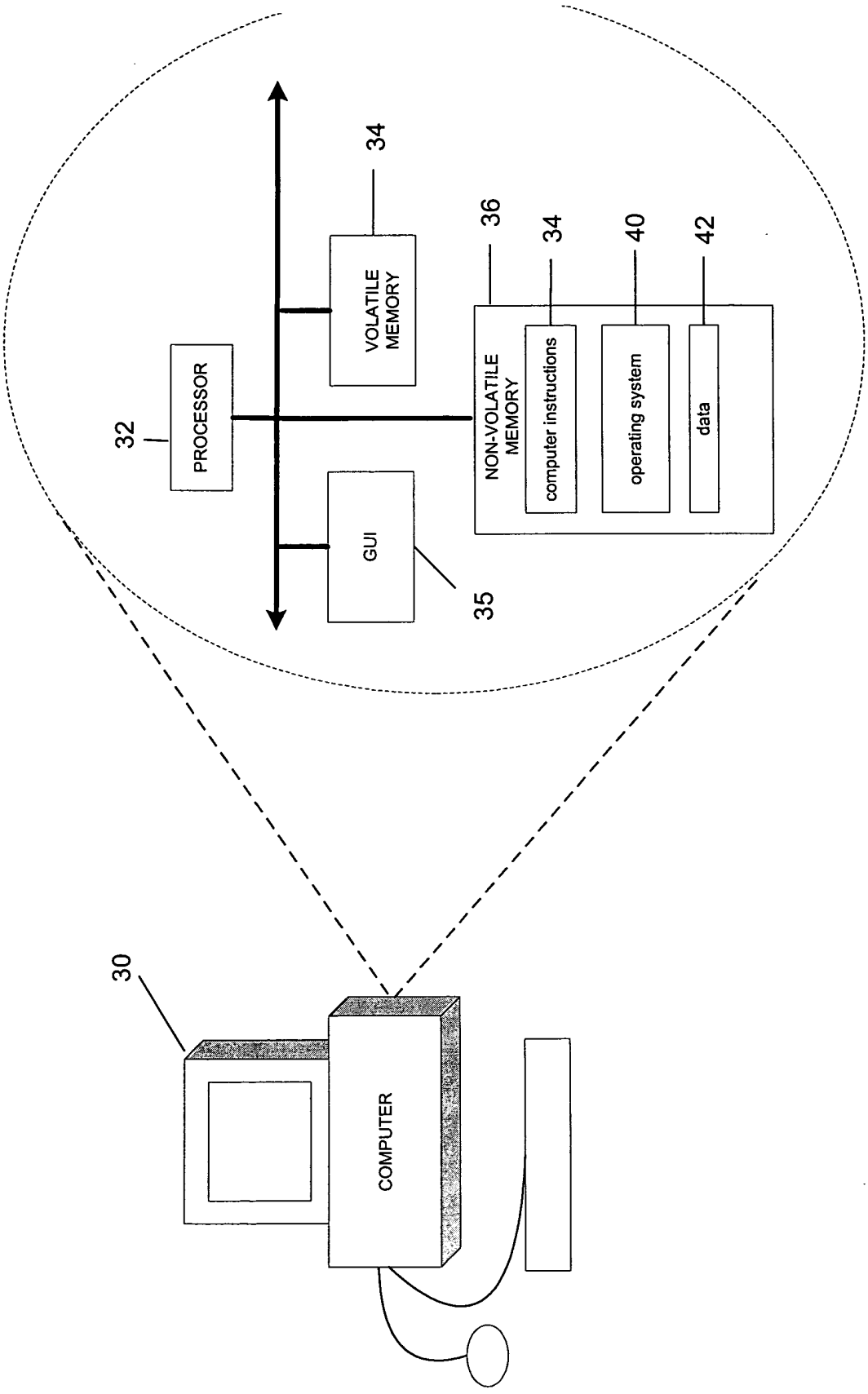
30
COMPUTER
32
PROCESSOR
34
VOLATILE MEMORY
35
GUI
36
NON-VOLATILE MEMORY
34
computer instructions
40
operating system
42
data

FIG. 6